CLAIMS

1. A method of determining the susceptibility of a human patient to prostate cancer comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

2. A method of diagnosing prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

3. A method of predicting the relative prospects of a particular outcome of prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

4. A method according to any one of claims 1 to 3 wherein the cancer is invasive.

5. A method according to any one of the preceding claims wherein the sample contains nucleic acid and the level of Pax 2 nucleic acid is measured by contacting the nucleic acid with a nucleic acid which hybridises selectively to Pax 2 nucleic acid.

6. A method according to Claim 5 wherein the sample contains mRNA and the nucleic acid selectively hybridises to Pax 2 mRNA.

7. A method according to Claim 5 or 6 wherein the nucleic acid which hybridises is detectably labelled.

8. A method according to any one of Claims 5 to 7 wherein the nucleic acid which selectively hybridises is single stranded.

9. A method according to any one of Claims 5 to 8 wherein the nucleic acid which selectively hybridises is suitable for use in a nucleic acid amplification reaction.

10. A method according to any one of Claims 1 to 4 wherein the sample contains protein and the level of Pax 2 protein is measured.

11. A method according to Claim 10 wherein the level of protein is measured by contacting the protein with a molecule which selectively binds to Pax 2 protein.

12. A method according to Claim 11 wherein the selective binding molecule is an antibody or fragment or derivative thereof or an antibody-like molecule.

13. A method according to Claim 11 or 12 wherein the selective binding molecule comprises a detectable label.

14. A method according to Claim 10 wherein the level of Pax 2 is measured by selectively assaying its activity in the sample.

15. A method according to any one of claims 1 to 14 wherein the sample is a sample of the tissue in which prostate cancer is suspected or in which prostate cancer may be or has been found, or contains cells from said tissue.

16. A method according to Claim 15 wherein the sample is any one of urine, semen, blood or lymphatic circulation.

17. Use of an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample in the manufacture of a reagent for diagnosing prostate cancer.

18. Use according to Claim 17 wherein the agent is a nucleic acid which selectively hybridises to Pax 2 nucleic acid.

19. Use according to Claim 18 wherein the agent is a molecule which selectively binds to Pax 2 protein.

20. Use according to Claim 19 wherein the agent is useful in selectively assaying the activity of Pax 2 protein.

21. Use of an agent as defined in any one of Claim 17 to 20 in a method of diagnosing prostate cancer.

22. Use of an agent as defined in any one of Claim 17 to 20 for diagnosing prostate cancer.

23. A kit of parts useful for diagnosing prostate cancer comprising an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample and a control sample wherein the control sample may be a negative control not comprising a detectable amount of Pax 2 nucleic acid or protein, or it may be a positive control comprising a detectable amount of Pax 2 nucleic acid or protein.

24. A method of treating prostate cancer comprising the step of administering to the patient an agent which selectively prevents the function of Pax 2.

25. A method according to Claim 24 wherein the agent prevents the expression of Pax 2.

26. A method according to Claim 24 wherein the agent inhibits the activity of Pax 2.

27. A method according to Claim 26 wherein the agent is an antisense molecule.

28. A method according to Claim 26 wherein the agent is a ribozyme.

29. Use of an agent which selectively prevents the function of Pax 2 in the manufacture of a medicament for treating prostate cancer.

30. A genetic construct comprising a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell.

31. A genetic construct according to Claim 30 adapted for delivery to a human prostate cell.

32. A genetic construct according to Claim 31 wherein the adaptation allows delivery to a prostate cancer cell.

33. A genetic construct according to Claim 31 or 32 comprising means to selectively deliver the nucleic acid to a prostate cancer cell.

34. A genetic construct according to any one of Claims 30 to 33 comprising means to selectively express the nucleic acid encoding a molecule in a prostate cancer cell.

35. A genetic construct according to any one of Claims 30 to 34 for use in medicine.

36. A pharmaceutical composition comprising a genetic construct according to any one of Claims 30 to 34 and a pharmaceutically acceptable carrier.

37. Any novel method of treating or diagnosing prostate cancer substantially as described herein, preferably with reference to one or more of the examples.

38. Any novel composition for use in treating or diagnosing prostate cancer substantially as described herein, preferably with reference to one or more of the examples.